



LIBERIA ELECTRICITY REGULATORY COMMISSION

**Annual Report for the Calendar Year Ended December 31, 2022
Pursuant to Chapter 10 of the Executive Law of 1972**



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ACRONYMS AND ABBREVIATIONS

ADR	Alternative Dispute Resolution
AfDB	African Development Bank
BoC	Board of Commissioners of LERC
CLSG	Cote d'Ivoire – Liberia – Sierra Leone – Guinea
ECOWAS	Economic Community of West African States
ELL	2015 Electricity Law of Liberia
ELR	Electricity Licensing Regulations, 2020
ERERA	ECOWAS Regional Electricity Regulatory Authority
ERI	Electricity Regulatory Index (for Africa)
ERU	Economic Regulation Unit
ESI	Electricity Supply Industry
EU	European Union
GoL	Government of Liberia
HFO	Heavy Fuel Oil
HV	High Voltage
IEC	Information Communication and Education
IT	Information Technology
JEP	Jungle Energy Power
KfW	Kreditanstalt für Wiederaufbau
kV	Kilovolts
kWh	Kilowatt hour
LAN	Local Area Network
LEC	Liberia Electricity Corporation
LERC or Commission	Liberia Electricity Regulatory Commission established under the 2015 Electricity Law of Liberia
LACEEP-AF	Liberia Accelerated Electricity Expansion Project – Additional Financing
LEWC	Liberia Electrical Wiring Code
MME	Ministry of Mines and Energy
MW	Megawatt
PURC	Public Utility Regulatory Commission (Ghana)
PURC	Public Utility Research Center (USA)
RDBMS	Regulatory Data Base Management System
RGI	Regulatory Governance Index
ROI	Regulatory Outcome Index
RSI	Regulatory Substance Index
RIA	Roberts International Airport
TA	Technical Assistance
TEC	Totota Electric Cooperative
TRU	Technical Regulation Unit



1.0 MESSAGE FROM THE CHAIRMAN

I am pleased to submit this 2022 Annual Report of the Liberia Electricity Regulatory Commission (LERC) consistent with Chapter 10 of the Executive Law of 1972. As required by the Executive Law, this report describes the Commission's activities and accomplishments in 2022; gives an account of all monies received and disbursed and outlines key activities planned for the next year.

LERC was created under the 2015 Electricity Law of Liberia (ELL), as an autonomous regulator of the electricity supply industry (ESI). The Commission oversees the provision of electricity services with clearly defined mandates relative to licensing operators, approving tariffs, establishing, and monitoring compliance with technical codes and commercial operations of the licensees, including resolving service-related disputes.

The 2015 ELL also specifies the roles of the other key sector agencies in the implementation of power sector reforms, including the liberalization of the sector to attract private investment to increase and eventually ensure universal access to electricity. Private capital is essential to augment the Government of Liberia (GoL) and its development partners' funding of critical electricity infrastructure to accelerate socio-economic transformation of the nation and reduce poverty.

In terms of achievements, LERC made significant progress in 2022 despite budgetary constraints. Key achievements in 2022 include:

- Publication of Complaints and Disputes Resolution Regulations.
- Approval of Nimba Distribution Contract Amendment and Bong Asset Assignment and Supply Contracts.
- Adjustment in Social Tariff threshold.
- Conducted Jungle Energy Power (JEP) Tariff Application and Review Process.
- Publication of Electricity Grid Code, Mini-Grid Code, and Distribution Code.
- Publication of Solar Energy Products Technical Regulations.
- Drafted Electrical Wiring Regulations and Wiring Code.
- Drafted Certification and Licensing of Electrical Professionals and Contractors Regulations.
- Establishment of Inspectorate Division.
- Conducted Training and Capacity Building through Secondment and Study Tours with the Ghanaian Regulator.
- Completed Stakeholders Consultations on the Five-Year Strategic Plan.

A major milestone in the reporting year was the recognition of LERC by the ECOWAS Regional Electricity Regulatory Authority (ERERA) for having one of the best in West

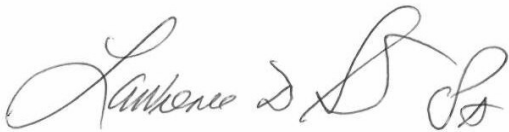
Africa licensing frameworks, and improvement in its ranking of Electricity Regulatory (ERI) for Africa from 37th position to 10th position as reported by the African Development Bank Group.

LERC plans for 2022 include but not limited to the following:

- Complete and launch a 5-year strategic plan
- Complete and Publish Electrical Wiring Regulations and Wiring Code
- Complete Certification and Licensing of Electrical Professionals and Contractors Regulations
- Launch Electrical professionals and Contractors Certification Scheme
- Establish Regulatory Data Base Management System
- Increase Public Outreach and Visibility Activities

We acknowledge and wish to express our gratitude for the supplemental financial support provided by the Government of Liberia.

On behalf of the Board of Commissioners (BoC) and Management, I would like to thank His Excellency President George Maneh Weah, President of Liberia, the Ministry of Finance and Development Planning, the Ministry of Mines and Energy, Legislature, regulated entities and the consumers for their support and cooperation. Finally, I would like to extend our special thanks to the European Union (EU) for their long-term technical support.



Lawrence D. Sekajipo, CPA, CFE, DBA, JSM
Chairman, Board of Commissioners

2.0 INTRODUCTION

2.1 Background

Created under the 2015 Electricity Law of Liberia (ELL), The Liberia Electricity Regulatory Commission (LERC) is the autonomous regulator of the electricity supply industry (ESI) of Liberia. It oversees the provision of electricity services with mandates to license operators, approve tariffs, establish, and monitor compliance with technical codes, standards, and commercial operations of licensees and permit holders, as well as resolving service-related disputes.

LERC is governed by a three-member Board of Commissioners (BoC) that provides oversight for the Commission. The role of the Board of Commissioners is to approve regulatory policies and strategic management decisions, as well as oversee the Commission's operations. A management team, headed by the Managing Director provides operational support to the BoC. The duties of the management team are undertaking research to provide evidence-based recommendations for BoC approval, implementing Board decisions, and carrying out the day to day administrative and operational activities of the Commission.

2.2 Functions of LERC

LERC oversees and regulates the following:

- Planning – coordination of plans to ensure adequacy and reliable supply of electricity
- Licensing – control entry and exit and effective monitoring of license terms and conditions for the following:
 - Generation, transmission, and distribution of electricity
 - Import and export of electricity
 - Electricity sale
 - Self-supply and Micro Utilities
- Liberalizing and supervising the electricity sector through transparent sector regulations
- Economic regulation – ensuring reasonable rates and allowing only efficient and prudent costs in tariffs
- Technical regulation – establishing standards and codes and ensuring open access to transmission networks.
- Quality of service and consumer satisfaction – promoting and protecting consumer rights
- Compliance and enforcement – monitoring and enforcing performance standards and targets
- Resolution of service and License related disputes – handling consumer complaints; arbitrating and mediating disputes
- Public awareness – increasing awareness to rights and duties
- Demand side management – promoting efficiency and conservation

2.3 Organizational Goals

2.3.1 Vision

The vision of LERC is to harness the best talents in the pursuit of an excellent regulator, driven by transparency, accountability, and good governance.

2.3.2 Mission

The mission of LERC is to maintain a conducive electricity regulatory environment, attractive to private sector investment. To accelerate universal access to affordable, reliable, and safe electricity services for consumers in a competitive market, ensuring adequate supply of electricity for sustained economic growth and enhanced quality of life.

2.3.3 Core Values

Consistency, Accountability, Proportionality, Integrity, Transparency, and Excellence.

3.0 OVERVIEW OF THE ELECTRICITY SECTOR OF LIBERIA

3.1 Introduction

The performance of the electricity sector of Liberia in 2022 was not satisfactory due significant generation deficit, and continuous gaps in transmission and distribution across the country. Hydropower remains the highest contributor to electricity generation in Liberia. This is followed by thermal technology and the remainder from power imports and other sources.

With respect to power generation, only 93 MW of the total installed capacity of 126 MW was available. This reduction in operational capacity at the Mt. Coffee Hydro Plant Bushrod Thermal Plant was due to the failure of one of the four turbines and failure of two generators respectively. These generation challenges were also exacerbated by the seasonal variations resulting in decreased inflow to the Mount Coffee run-off-river scheme and acute demand-side management by the only state-owned electrical power producer, LEC.

Liberia's total imported power generation of 8MW (33-kV cross border interconnection with Cote d'Ivoire), was increase increased to 35 MW by additional 27MW in December 2022 through the interconnected Cote d'Ivoire, Liberia, Sierra Leone, and Guinea (CLSG) transmission network. These power imports and other expected Independent Power Producers' participation will set the basis for addressing future power inadequacies. The power purchase agreement (PPA) with Cote D'Ivoire Energies (CIE) and transmission service agreement (TSA) with Transco-CLSG for the supply and transport of an additional 27MW of Power is a major milestone achievement in supplementing power supply and enhancing electricity reliability and affordability.

3.2 Electricity Planning

The Ministry of Mines and Energy (MME), as the energy sector policy lead, is responsible for national energy and integrated resource planning, including electricity.

By law, LERC's role is to oversee the planning process of licensees to ensure their long-term plans are responsive, adequate, and consistent with the national energy policy established by the MME. Planning must be undertaken by each licensee and consolidated into an Electricity Supply Plan. Thereafter those plans are expected to be

lodged with LERC for approval and implementation coordination. This aspect of the electricity operations has not been realized.

3.3 Electricity Supply

3.3.1 Sources of Electricity Supply

Generation type	Installed capacity	Available capacity
Hydro (LEC)	88 MW Mt. Coffee	60 MW Mt. Coffee
Thermal (LEC)	38 MW HFO thermal plants – Bushrod Island	33 MW HFO thermal plants-Bushrod Island
Solar PV/diesel hybrid (TEC)	140 kW Totota	63 kW

Imports

Nimba	4MW
Maryland	2MW
Grand Gedeh	2MW
CIE	27MW

For the period under review, electrical energy production by hydro power generation technology remains the highest contributor to the Liberia electricity supply industry. This is followed by thermal technology and the remainder from power imports and other sources.

Table 1: Regulated Entities Contribution to Liberia Electricity Supply Industry

No	Power Generation Source	Annual Electrical Energy Contribution to ESI (MWh)	Percentage
1	Hydro (LEC)	227814.7	78.98
2	Thermal		12.33
	LEC	35402.97	
	TEC	158.99	
3	Solar PV (TEC)	32.1	0.01
4	Imports		
	Nimba/Bong	12822.467	8.68
	CLSG	12207.86	
Total		288439.087	100.00

3.3.2 Transmission Facilities

The Liberia Interconnected Transmission System currently operated at 66kV spans 258 km. In addition to upgrading eight substations, seven new substations have been constructed within the 66-kV transmission network.

The 225-kV regional interconnected transmission line operated by Transco CLSG spans 537Km within Liberia and contains five substations (Yekepa, Botota, Buchanan, Mt. Coffee, and Mano).

3.3.3 Distribution Facilities

The National Utility operated 466 km of 22kV and 230 km of 33kV distribution lines and an existing transformer capacity of 76MW. Ongoing electricity distribution expansion projects are expected to increase distribution transformer capacity by 134MW. Expansion of the Liberia Interconnected Transmission System is being implemented by several donor funded projects.

3.4 Electricity Access and Demand

Ongoing network expansions in transmission and distribution have witnessed more customer connections throughout the electricity service areas of licensed distribution operators. Table 4 shows a comparative analysis of service providers performance in 2021 to 2022:

Table 2: Comparative analysis of service providers performance in 2022

Indicator	Service provider	FY 2022	FY 2021	Percentage (%) increase
Customer connections by operators	LEC	199,441	142,929	39.5
	JEP	8,134	7,934	2.5
	TEC	376	347	7.7
	TOTAL	207,951	151,210	49.7
Electricity Sales by distribution Operators (MWh)	LEC	109,287.216	84,495.580	22.6
	JEP	12,822.467	6,048.209	52.8
	TEC	156.769	72.034	54.1
	Total	122,266.452	90,615.823	25.9
PEAK DEMAND (MW)	LEC	65.3	57	12.7
	JEP	*	*	*
	TEC	56.9	61.1	-6.87 [#]

*JEP required information not available due to absence of functional instrumentations.

An increase in Tariff due to increases in the price of Fuel has led to a successful demand side management by the introduction of Energy efficiency awareness campaign.

4.0 KEY ACCOMPLISHMENTS IN 2022

4.1 Legal, Licensing and Public Affairs

The Legal, Licensing and Public Affairs Unit provides advice to the Managing Director and Commissioners to ensure that the Commission, licensees, and other stakeholders in the electricity supply industry operate in compliance with the provisions of the Electricity Law and other related laws. The Unit also oversees all matters regarding licensing and public affairs at the Commission and ensures that electricity regulatory functions and licensing are done in accordance with the 2015 Electricity Law of Liberia and applicable regulations.

4.1.1 Complaints and Disputes Resolution Regulations

The Customer Complaints and Disputes Resolution Guidelines was revised and transformed into the Complaints and Disputes Resolution Regulations. The draft Regulations establish procedures for investigating and hearing of complaints between customers and service providers or between or among two or more licensees or permit holders. The Regulation is expected to be completed and published by the first quarter of 2023.

Consistent with the Customers Complaints Guidelines, the Commission received six complaints from customers of the Liberia Electricity Corporation (LEC). The complaints received were mainly about the lack of and/or poor quality of electricity supply services and these disputes were amicably resolved with LEC restoring services to aggrieved customers.

4.1.2 Nimba and Bong Distribution Contracts Review

The Commission completed a review of the Nimba Distribution Area amended contract and the Bong County Distribution Contract between LEC and JEP. LEC in 2016, entered a contractual agreement with JEP to manage the Nimba Distribution Area at the time when the Regulator had not been established. The review ensured that the two contracts are now in compliance with the 2015 ELL, various regulations, guidelines, and policies as set by the Commission. These documents would serve as templates for future agreements.

4.1.3 Publications

The Commission published several regulations, resolutions, and public notices during the reporting period. The publications included: Electricity Mini Grid Code of Liberia, Electricity Distribution Code of Liberia, and the Electricity Grid Code of Liberia, as well as resolutions approving the codes.

4.2 Economic Regulation

The Economic Regulation Unit is responsible for developing and implementing broad economic and financial policies and methods for the determination of optimal electricity pricing and the evaluation of the prudence of the costs of operators and the financial viability of those operators.

4.2.1 LEC New Tariffs Effectiveness

The new LEC tariffs, covering four categories of consumers (residential, non-residential, industrial – medium voltage, and social) took effect on January 1, 2022.

4.2.2 LEC Application for Tariff Review

LEC applied for tariff review in July 2022 aiming at reducing social tariff threshold and increasing non-residential and medium voltage customers' tariffs. Following receipt of the application, the Commission carried out an analysis of LEC's optimal generation mix, and revenue projections as approved in December 2021. The actuals that were reported during the first two quarters of 2022 were also analyzed. During the 2021 tariff approval process, LEC projected its optimal generation mix consisting of Mt. Coffee Hydropower Plant, the imported power from Cote d'Ivoire via TRANSCO-CLSG, and the Bushrod Thermal Power Plants. The approved LEC's least cost power dispatch schedule which provided the basis for the calculation of 2022 revenue requirement was

also analyzed to determine the level of recovery of the revenue requirement during the first two quarters of 2022. Findings from the analysis were as follows:

- a) The CIE and TRANSCO-CLSG Power Purchase Agreement (PPA) and Transmission Service Agreement (TSA) anticipated to be signed to take effect in January 2022 did not materialize. Additionally, a significant amount of the installed generation capacity at the Bushrod Thermal Plants were not available, coupled with the low capacity at Mt. Coffee Hydro Power Plant during the dry season.
- b) That unavailability of CLSG Power and reduction in generation from the Bushrod Thermal Plants led to over 50% reduction in generation capacity during these two quarters.
- c) The significantly low LEC's generation capacity necessitated the unprecedented massive load shedding from January to May 2022, thereby putting almost all the residential customers in the social customer category. Furthermore, commercial, and large customers reverted to self-generation which had an adverse effect on LEC's revenue generation. Therefore, the poor revenue performance of LEC could not be attributed to the tariffs approved by the Commission that became effective in January 2022, but due to the under-supply of power to the grid.

Following the analysis, the Commission requested a meeting with the senior-level staff of LEC to discuss the application and the above findings. In accordance with the results from the discussions and analysis of data submitted by LEC, the Commission made no change in LEC's electricity tariffs as approved December 2021, but approved a change in the Social Tariff threshold from 50 kWh to 25 kWh monthly. This means that all residential customers on the LEC's network who purchase or consume 25kWh or less monthly should be charged US\$0.15 per kWh.

4.2.3 JEP Tariff Application and Review Process

The commission, in April 2022, triggered JEP tariff application process by requesting JEP to submit its tariff application in fulfillment of the 2015 Electricity Law of Liberia (2015 ELL) and associated regulations. Prior to submission of its tariff application, JEP requested a two-day meeting with the Commission to familiarize themselves with the requirements of the tariff application process.

The Commission compiled and published the abridged version of JEP's application for stakeholders' comments and conducted a public consultation of the tariff approval process during the second week of November 2022. The Commission later conducted a public Hearing of the tariff application process on December 10, 2022 in Ganta City at which time JEP presented its financial, economic, and technical conditions. The Commission thereafter obtained stakeholders' comments on the abridged application and was expected to deliberate and announce the new tariff by the end of the first quarter of 2023.

4.3 Technical Regulation Unit (TRU)

The Technical Regulation Unit advises the Managing Director and Commissioners on all regulatory issues relating to the technical performance of the electricity supply industry, including setting performance targets for licenses, monitoring, and enforcing licensee's technical and environmental compliance consistent with the 2015 ELL, regulations and licensing terms and conditions. The unit also provides

support to the Legal, Licensing and Public Affairs Unit in the evaluation of license applications.

4.3.1 Publication of Electricity Grid Code, Mini-Grid Code, and Distribution Code

The Commission has completed and published the Electricity Grid Code, Electricity Mini-Grid Code, and Electricity Distribution Code.

- i. *Electricity Grid Code* – is a harmonized and standardized technical document for the development, operation, maintenance, and use of the Liberian Interconnected Transmission System. It sets out the rules and criteria addressing governance, planning, connection, operations of the interconnected transmission system, the standards of performance, metering as well as information and data exchange among participants engaged in that segment of the electricity supply industry.
- ii. *Electricity Mini-Grid Code* – provides technical and safety guidance for the development and operation of mini grids in Liberia.
- iii. *Electricity Distribution Code* – contains the guidelines and conditions that a distribution licensee must meet in carrying out its obligations to distribute electricity under its distribution license.

4.3.2 Solar Energy Products Technical Regulations

The Commission completed and published the Solar Energy Products Technical Regulations which apply to suppliers of all solar energy products and specify:

- (a) essential quality and safety requirements for solar systems that generate electricity, solar thermal systems that generate heat and their components.
- (b) requirements for labelling of solar energy product and submission of technical documentations; and
- (c) conformity assessment procedures with which the suppliers shall comply.

These regulations would also be critical to the implementation of Executive Order No. 107 suspending tariffs on off-grid solar renewable energy products and its successors the enactment and promulgation of future legislation relative to solar energy.

4.3.3 Drafted of Electrical Wiring Regulations and Wiring Code

The Electrical Wiring Regulations establish the requirements, procedures, and practices for the enforcement of minimum standards for distribution of electrical energy in and around all types of structures including residential and commercial premises, public buildings, factories, construction sites, farmhouses, booths, temporary installations, and playgrounds. The Regulations ensure the safety of persons, livestock and property from hazards that arise from the use of electricity, including safety against electric shocks, burns and fire.

The Liberia Electricity Wiring Code (LEWC) gives general technical guidelines on how the statutory requirements of the Electrical Wiring Regulations can be met. The structure of the LEWC corresponds to that of the Electrical Wiring Regulations in that a code will be associated with a corresponding regulation of the Wiring Regulations.

Compliance with the LEWC should achieve compliance with the relevant aspects of the Electrical Wiring Regulations.

4.3.4 Regulations on Certification and Licensing of Electrical Professionals and Contractors Regulations

Regulations for the certification and licensing of electrical professionals and contractors have been drafted pending stakeholders technical review and validation. They apply to electrical work, including the design, installation, commissioning, maintenance, repair, inspection, and testing of such works as well as electric related energy efficiency contracting. The regulations set standards for electrical professionals and contractors undertaking electrical work and elaborate the qualification criteria for electrical professionals and contractors.

4.3.5 Inspectorate Division

An Inspectorate Division has been set up within the Technical Regulation Unit (TRU) to enhance the Commission's responsibilities in conducting inspection activities across the electricity value chain, including inspection of facilities, equipment, operations, and services of licensees and permit holders in accordance with terms and conditions of licenses/permits, including technical requirements and standards as adopted by the Commission. The Inspectorate Division will also be involved in organizing and implementing inspectorate tasks, activities, and functions under the direction of the Head of Technical Regulation of LERC. The inspectorate division will ensure the enforcement of license terms and conditions, regulations, electrical codes, and laws covering the installation and maintenance of electrical supply and utilization systems.

4.4 Information Technology

The Department manages and oversees the implementation of the Commission's IT Infrastructure, computer network and related computing environment including computer hardware, systems software, applications software to support and extend the system. The Department works closely with the Public Relations and Communication Officer to maintain and upkeep the Commission's website (www.lerc.gov.lr).

The department continues to transform and digitalize LERC various functions in Finance, Human Resources & Administration, Technical, Economic and Legal regulations, to ensure the Commission's documents are safe and stored on a central server. It has put in place an IT disaster recovery plan that mitigates risks to data and ensures data protection as well as determining the best way for data recovery. Currently backup software is installed on our server, laptops, and workstations to protect and capture data stored on these devices. A major milestone in IT is the drafting of the Commission's IT Policy for subsequent review and approval by the Board of Commissioners.

4.5 Human Resources and Administration

The Human Resource and Administration Unit is responsible for planning, directing, and coordinating human resource management activities of the Commission, to maximize the strategic use of human resources and maintain functions such as employee compensation, recruitment, personnel policies, and regulatory compliance. The Unit also handles administration and related activities. The Commission strives to

provide a conducive work environment, hold staff accountable and assist in career development, whilst complying with the Decent Work Act 2015, National Code of Conduct and operate its program consistent with international best practices.

4.5.1 New Human Resource Management Software

In anticipation of building a human resource management system that works effectively and remotely, the Human Resources and Administration Unit introduced a new human resource management Software known as Freshteam. The software enhances the Commission's management of human resources by planning, managing, and optimizing employee processes with one common data source in four different components – *human capital management; time management; employee tracking; and new-hire onboarding system.*

4.6 Finance

The Finance Unit oversees financial management of the Commission, and key functions include managing the day-to-day financial operations such as payroll, invoicing, budgeting, and accounting policies and compliance and other finance related transactions. A key accomplishment of the Finance Unit was the inclusion of cloud-based QuickBooks transactions to the existing local server-based network and transactions.

5.0 TRAINING AND CAPACITY BUILDING

As a new regulator, LERC attaches great importance to training and capacity building of its staff. Therefore, the Commission was involved in several training and capacity building activities with the help of its partners and the parent regional organization the ECOWAS Regional Electricity Regulatory Authority (ERERA).

5.1 In-House Training

Long-Term Technical Experts, funded by the European Union under the project Technical Assistance to the Liberia Electricity Regulatory Commission (LERC) and Ministry of Mines & Energy (MME) provided on the job training for LERC technical staff using the learning-by-doing method. The training in 2022 covered:

- a. Monitoring the terms and conditions of licenses, and compliance enforcement techniques.
- b. technical regulations with emphasis on electrical wiring regulation, electrical wiring code, and requirements for the licensing and certification of electrical professionals and contractors.
- c. tariff regulations, methodology, analysis, development of tariff models, and format for public hearing on tariff applications
- d. Complaints and Dispute handling procedures and Alternative Dispute Resolution (ADR) procedure.

5.2 ERERA Twinning Program

Under ERERA's Twinning Program for building capacity technical staff at regulatory institutions in ECOWAS member states through the exchange of exchange of staff between more mature and relatively new regulatory institutions within the ECOWAS region, six staff from LERC participated in a month-long training with the Public Utility Regulatory Commission (PURC) and the Energy Commission (EC) in Accra, Ghana.

The technical and practical training covered a wide range of topics on technical, economic, and legal regulations of the electricity market, including field visits.

5.2 Study Tour

A joint team from LERC and the Department of Energy of the MME undertook a study tour to Accra, Ghana to learn about the legal and institutional framework, developments, and growth of the electricity supply industry of Ghana. Ghana was selected for being one of the sub-Saharan and West African countries that has achieved considerable success with sector reforms, introduction of private sector participation and electricity access.

The study tour consisted of meetings with the top management teams, interactive PowerPoint presentations and field visits. Some key areas of focus were:

- *Regulatory framework:* Areas of interest included the instruments and tools available to the regulators as well as the regulatory procedures, processes, and practices in place.
- *Institutional framework:* The team learned about the existing institutional frameworks and their evolution compared with the Liberian context. This involved the work of complementary agencies responsible for the promotion and facilitation of electricity/energy projects.
- *Operators:* Insights into operations of the generation, transmission, and distribution segments of the industry.
 - Generation station
 - Distribution substation
 - Transmission Grid Operation and Dispatch Center
 - Mini-grids- including hybrid system and storage system
- *International perspective:* Overview of activities of the ECOWAS Regional Electricity Regulatory Authority and the Authority's expectations of LERC.

The tour was funded by the European Union under the project: Technical Assistance to the LERC and MME – (FED/2020/415-155).

5.3 Public Utility Research Center/World Bank International Training Program

With support from the World Bank, the Chairman of LERC participated in an intensive two-week training program at the Public Utility Research Center (PURC) of the University of Florida in Gainesville, Florida, United States of America. The training program was specifically tailored to the professional requirements of utility regulators and designed to enhance the economic, technical, policy, and leadership skills required for the implementing policies and managing sustainable regulatory systems for infrastructure sectors.

6.0 DONOR SUPPORT

The European Union (EU) continued its support to the LERC through the Project: Technical Assistance to Liberia Electricity Regulatory Commission and Ministry of Mines and Energy – FED/2020/415-155. The project involves the deployment of

regulatory experts who provided technical support in the areas of economic, legal, and technical regulations.

7.0 RECOGNITION AND RANKING IN AFRICA

The Commission has made significant progress in regulatory governance and the development of regulatory instruments since it became fully functional in early 2019. As a result, the LERC is now a full-fledged member of the Consultative Committee of Regulators and Operators of the ECOWAS Regional Electricity Regulatory Authority (ERERA) and the Electricity Regulatory Index (ERI) for Africa, under the auspices of the African Development Bank (AfDB).

According to the 2022 ERI report for Africa, LERC is now ranked 10th out of 43 electricity regulators in Africa, compared to 37th out of 43 in the previous year. The 2022 ERI report is the fifth edition, and it measures the level of development of electricity sector regulatory frameworks in African countries and the capacity of regulatory authorities to effectively carry out their relevant functions and duties. The ERI is made up of three pillars or sub-indices: 1) *Regulatory Governance Index (RGI)*; 2) *Regulatory Substance Index (RSI)*; and 3) *Regulatory Outcome Index (ROI)*.

ERERA, in its Analysis of Licensing Procedures in ECOWAS Member States for the purpose of harmonizing licensing procedures in the West African Regional Electricity Market, has lauded LERC for its licensing framework. The report of the ERERA analysis states: *“The Liberia licensing process is well defined, complete and publicized, and it is one of the best examples among the analyzed West African Countries”. It further concludes that “Liberia’s licensing process may serve as one of the model processes that could be used by other ECOWAS member states should they want to develop their process from the scratch or improve it; and describes Liberia’s import license and its terms and conditions as a valued model.”* This special recognition of Liberia licensing framework is a testimony of the quality of LERC’s regulatory governance and instruments.

8.0 SUMMARY OF INCOME/REVENUE AND EXPENDITURE

Summary of Income/Revenue and Expenditure For the Year Ended December 31, 2022	
Revenue	
Source	Amount (US\$)
Regulatory Levy	560,651.27
GOL Subsidy/Budgetary Support	503,011.00
Total Revenue/Income	1,063,662.27
Expenditure	
Personnel	947,464.92
Goods and Services	181,505.86
Total Expenditure	1,128,970.78
Net Balance (Loss)	(65,308.51)

9.0 ACTIVITIES PLANNED FOR 2023

Activities to be undertaken in 2023 include but not limited to the following:

9.1 Complete and Launch a 5-year Strategic plan

The LERC has embarked on the development of a five-year Strategy (2023-2027) that clearly articulates the Commission's mission, vision, core values and strategic objectives based on where we are coming from, where we are and where we want to go, and how we will get there over the next five years. The strategic plan will take into consideration stakeholders' expectations and relevant documents such as the 2015 Electricity Law of Liberia and associated regulations and codes.

9.2 Complete and Publish Electrical Wiring Regulations and Wiring Code

The Commission will conduct stakeholders' technical review and validation of the Certification of Electrical Contractors and Professionals Regulations, and Electrical Wiring Regulations, including the electrical wiring code, after which the documents would be completed and published accordingly.

9.3 Complete Certification and Licensing of Electrical Professionals and Contractors Regulations

The Commission will conduct stakeholders' technical review and validation of the certification and licensing of electrical professionals and contractors' regulations. The regulatory instrument will then be finalized taking into consideration stakeholders' inputs and comments for publication.

9.4 Launch Electrical professionals and Contractors Certification Scheme

To facilitate the implementation of the Electrical Wiring Code and associated regulations, LERC will work with the Ministry of Education, Ministry of Youth and Sports,

and vocational and technical training institutions to launch electrical contractors and professional certification programs for implementation across the country.

9.5 Establish Regulatory Data Base Management System

Having completed the development of key regulatory instruments for the electricity market in Liberia, LERC takes keen interest in the performance and quality of data supplied by regulated entities, and their impacts on regulatory outcomes. While the Commission has made significant progress in the development of regulations, a robust data collection and management system is critical to the various aspects of the electricity market to ensure continued improvement in the quality of regulatory decisions. The 2022 Electricity Regulatory Index (ERI) for Africa, released by the African Development Bank Group recognizes the significant progress LERC has made in regulatory governance and substance. However, this progress is not reflected in our regulatory outcomes. Accordingly, LERC plans to set up a Regulatory Database Management System (RDBMS) to enhance the Commission's capacity by automating internal processes, including compliance monitoring and enforcement, consumer awareness, complaints/disputes resolution, as well as performance tracking of regulated entities.

9.6 Increase Public Outreach and Visibility Activities

The LERC intends increase outreach and visibility activities to inform stakeholders, consumers, and the public on the work of the Commission and opportunities available for electricity consumers to seek redress instead of engaging into power theft. This will include holding town hall meetings, live radio talk shows, radio programs, and developing and disseminating information, education, and communication materials on the various regulations including the Customer Service and Quality of Supply and Complaints and Dispute Resolution.

10.0 CHALLENGES

As an emerging regulator, budget constraints are primary challenges that continue to limit the Commission's ability to expand its scope of operations, continue to build the capacity of its staff, and undertake public engagement and outreach for regulated entities and consumers.

10.1 Measures to Mitigate Challenges

By virtue of the 2015 Electricity Law, LERC is to be funded through a levy charged on electricity produced and consumed as a pass-through expense to consumers. To address the budgetary constraints, the Commission will put in place mechanisms to monitor and effectively collect regulatory levies from licensees, including the LEC.